

Fire Department Funding Strategies for Capital Projects

Fire Service Financial Management

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Abstract

The changing economy has sent shock waves through communities of all size. The Dothan Fire Department's lifeline had been municipal funding as its planning mechanism, but has discovered that funding from municipal treasuries will not support long-range capital programs.

The problem was the Dothan Fire Department had not identified viable funding alternatives for capital projects.

The purpose of this research paper was to identify viable funding alternatives for the Dothan Fire Department's capital projects, specifically, vehicles and buildings.

The evaluative research method was chosen to identify alternative funding sources that would meet long-range planning objectives and to make recommendations that would answer the following research questions:

1. How is funding for capital projects appropriated by the City of Dothan?
2. Why are alternative funding sources needed by the Dothan Fire Department for capital projects?
3. What alternative funding methods are utilized by other fire departments for capital projects.

The procedure for this project included a review of fire service literature, a survey of fire departments to identify which funding sources were available to fire departments, and finally, interviews with the Finance Director for the City of Dothan and the former Dothan Fire Chief, to gain perspective on what type of funding would be supported by Dothan officials.

This research lead to the discovery that funding for fire department capital projects was inadequate, and the subjective prioritization process did not guarantee that department missions were given due consideration. It was also revealed that the city's debt service placed severe limitations on funding alternatives that potentially were more appealing under better financial conditions.

It was recommended that the Dothan Fire Department participate in the FEMA Grant Program and re-evaluate its vehicle replacement plan to determine if the infrastructure requirements for ISO compliance were attainable.

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Introduction

The Dothan Fire Department has not been unaffected by the downturn in the economy. In fact, directives from upper management had been for all departments to streamline their budgets by 10% for the current fiscal year. By all accounts, those directives severely hampered, if not totally restricted, the fire department's ability to sustain its predetermined long-range capital plan.

Problem

The problem was the Dothan Fire Department had not identified alternative funding sources for capital projects.

Purpose

The purpose of this research paper was to identify alternative funding sources for capital projects, to evaluate, recommend, and garner support for implementation.

Research Method

The evaluative research method was determined to be appropriately effective for the stated project objectives. By using the evaluative method the following questions could be answered.

1. How is funding for capital projects appropriated by the City of Dothan?
2. Why are alternative funding sources needed by the Dothan Fire Department?
3. What alternative funding methods are utilized by other fire departments for capital projects?

BACKGROUND AND SIGNIFICANCE

The Dothan Fire Department was issued a charter to organize in 1903. The department employs a career workforce of 172 uniformed members, and provides comprehensive emergency service to 60,000 citizens in an 85 square mile jurisdiction. Dothan is recognized for its sizeable peanut crop, and has a mixed distribution of light industrial and agricultural interests that contribute to its general fund through taxation.

Past Impact

The City of Dothan conducts its financial affairs by utilizing a target budget system, which allows for built-in 5% annual increases to its balanced budget agenda. All departments are given a target value for their operations and those figures are presented to the Commission before any new business is conducted. Historically, those figures did not represent any unfunded capital requests. A supplemental budget is presented approximately 30 to 60 days after the target budget has been approved to address unfunded capital requests. The supplemental budget is reflective of the revenues received from all sources with utility receipts being the largest fee generator.

Prior to the economic downturn, which is credited with the reduction of funding for capital projects, the revenue package was significant enough that many capital projects could be funded by staggering the purchases year to year. Additionally, the City determined that a more favorable ISO rating was desired to attract industry and supported the ISO reduction effort.

Present Impact

The ISO requirements were significant and led to a citywide reduced rating from a split classification of 3/9 to a class 2. This effort required an initial investment of approximately six million dollars. In order to meet all requirements, an additional four to six million dollars is needed to build two new fire stations, to purchase and staff an additional ladder company, and upgrade the Regional Airport's capability.

Presently, the city's financial status is affecting decisions to fund capital projects and its philosophy towards ISO maintenance.

Future Impact

The rapid growth, the requirements of ISO, coupled with a dwindling economy and the failure to have funding reserved for the fire department's capital needs, encourages an environment that will not be conducive to our strategic agenda. In fact, it is probable the city could lose its favorable ISO rating. Homeowners and commercial businesses could lose premium savings, which accrue nearly 20 million dollars annually, causing the initial investment to be viewed as incompetent management by fire department officials, and disrupting the quest for fire department accreditation.

The results of this research paper will serve as a benchmark for investment strategies which accommodate the mission and vision of the Dothan Fire Department, alleviate the hardship imposed by unexpected emergency purchases, forecast changes in NFPA Standards, anticipate revisions to local

ordinances, and accept the service demands imposed by annexation.

This research project required implementing the course objectives as outlined in the National Fire Academy's Executive Fire Officer Program. The problem identified is related to the Fire Service Financial Management Course Unit Seven (7) Alternative Funding and Unit Eight (8) Budget Management. This paper is intended to support the United States Fire Academy (USFA) objective of, "promoting within the Dothan Community a comprehensive, multihazard risk-reduction plan" that addresses the local need through adequate funding for strategic objectives.

LITERATURE REVIEW

The Dothan Fire Department is not a stagnate enterprise. It is and has been affected by change, and that change is evident in how this department is developing strategies to sustain its missions. Fire Department managers must integrate alternative funding strategies into the existing municipal budgeting system to meet the need for capital projects.

Capital Funding Appropriation.

An interview with Mrs. Angela Palmer, Finance Director for the City of Dothan, was conducted on March 5, 2002, to gain insight into how funding is generated for this city. Mrs. Palmer is charged with reviewing each department's budget requests prior to addressing the City Commission with her recommendation to adopt the legal agreement. Mrs. Palmer provided background information for this research project that

enabled this author to formulate strategic recommendations for city officials.

The City of Dothan's budget is funded by profits accrued from utility collections, ad valorem and retail sales taxes, and as service demands require, the issuance of floating bonds. Additionally, the revenues that are not consumed by operational costs, are placed in a fund (unreserved fund) to be used for the supplemental budget's capital investments. Supplemental budget requests are usually considered 30 to 60 days after the resolution to accept the target budget by the Commission.

Dothan's fiscal operating budget for 2001 was approximately 113 million dollars. The total current revenue for this budget is 107 million dollars with the balance of 6 million dollars being drawn from the unreserved fund. The primary source for funding this budget is the general fund of 43 million dollars. The general fund is supported by an 8% sales tax. The city's dividend of the sales tax is 3% (which is variable based on consumer spending) and generates 31 million dollars, while the state receives 4% and the county receives 1%. An ad valorem tax of 31 mils is added with five (5) mils earmarked for the city's general fund. Ad valorem or property taxes are considered as fixed revenue rates. Unfortunately, Alabama has the lowest property tax rate in the country; therefore, the resulting revenue is minimal, as compared to other geographic locations and was a consideration during the selection of survey participants. The Ad valorem tax for Alabama is figured as follows:

Appraised Value of Property

X .10

= Assessed Value

X.31 Mils

= Assessed Tax

4% of Assessed Tax to City General Fund

Dothan's utility fund totaled 65 million dollars for fiscal 2001 and has been a reliable resource for many of the city's capital needs. The utility fund's solvency is sustained by the city's purchasing of electricity and reselling it to the public. The city also sales water and sewage disposal and as a result, is capable of generating 60 to 70% of all funding for city operations.

Mrs. Palmer identified leasing agreements and floating bonds as other options available to the fire department for funding capital projects. However, with either option, the total debt service of the borrowing city (Dothan), is a factor in the overall percent of interest charged by the lending agency. The City of Dothan's current debt service is 75 million dollars, and subsequently the interest rate is calculated at 5%.

Mrs. Palmer stated that leasing is viewed by the City of Dothan as unfavorable when considering fire apparatus purchases based on at least three factors.

1. The interest rates are higher due to the city's debt service.
2. The final purchasing cost is higher based on the required buy-out at termination of the lease, and requires large-

out-of pocket (unreserved fund) cash transactions.

3. The service life of fire apparatus (15 years) is more conducive to ownership by the city, compared with the short-term high interest lease agreements.

According to Mrs. Palmer, bond issues are attractive because they allow the city to make capital purchases without compromising the on-hand cash reserves and don't require voter approval. Mrs. Palmer suggested that the city establish escrow accounts that receive annual contributions for future capital purchases.

The information provided by Mrs. Palmer on the city's revenue generating capabilities and its total debt service, is indicative of the need for a strategic capital plan that minimizes the dependency of the Dothan Fire Department on the general fund as its sole source for capital investments.

Why Alternative Funding Sources are Needed?

The largest expenditures by the Dothan Fire Department other than its payroll, will be investments in fixed facilities and rolling fleet. Fixed facility investments occur at infrequent intervals, and usually won't require the specific timelines as a vehicle replacement plan; although changing NFPA Standards will likely influence a department's rolling fleet replacement schedule. Chatterton & Chatterton (1994) suggest a service life of fifteen years for front-line pumpers, with five additional years for reserve service. The replacement cost for a Class A pumper is approximately \$250,000 and is a significant expense for many departments. The replacement schedule would

serve as a plan for calculating a dollar value needed to build an escrow account for vehicle purchases by periodically depositing funds for future use.

The Dothan Fire Department's acceptance of new missions that include EMS and Technical Rescue Programs has presented a new financial hardship on this agency. Dipoli & Buckman (1997) have a shared belief that "these new missions have their own set of service costs and administrative concerns" (pg. 11). The Dothan Fire Department programs have inherent maintenance and upkeep costs. For instance, the maintenance contract for Physio Control defibrillators used by the Dothan Fire Department is over \$9,000 annually.

The decision to reduce Dothan's ISO rating resulted in a staggering initial investment of nearly 6 million dollars. The ISO reduction included the construction of three (3) fire stations and purchasing a ladder truck. Mead & Lissauskas (2002) noted that funds for capital maintenance is particularly vulnerable. This is in part due to the increasing cost of infrastructure development. Dothan's ISO rating requires a continued commitment to infrastructure development and financial support for compliance with the ISO mandates.

Vetter (2001) recommends financing major capital projects through issued bonds. He identified bonds as more attractive due to low interest rates of about 4%. On the downside, he informed readers that bonds may need voter approval. Dothan's continued annexation, population growth and changing demographics also influence capital budget decisions. The

projected costs due to the aforementioned influences are estimated at 4.5 to 6 million dollars and further substantiate the need for alternative funding.

Personnel Protective Equipment (PPE) Standards that affect the service life of turnout equipment is another example of why alternative funding must be located. A survey conducted by Pollack (1999) concluded that the average service life for PPE was 5 years. A replacement schedule of one fifth of the Dothan Fire Department's turnout equipment on an annual basis would cost approximately \$35,000.

Self-contained breathing apparatus (SCBA) has been affected most significantly by NFPA Standards. Pollack's Survey (1999) established eight years as the average service life for SCBA. A one-eighth replacement schedule of SCBA equipment by the Dothan Fire Department is projected at \$22,000 annually. Again, the adherence to a replacement schedule would minimize large capital investments during fiscal cycles.

Proposals to implement EMS transport service to enhance emergency response and to generate revenue are estimated at 1.2 million dollars for start-up cost. According to former Fire Chief Dennis Rubin (Personal Communications, 1999) who is an advocate for fire department based transport systems as fee generators, "The income stream from transport would actually pay the salaries of personnel after 4 or 5 years". Additional personnel was an identified requirement by the ISO study due to a needed second ladder truck. However, a commitment from the elected body is critical for implementation.

Funding Methods of other Fire Departments.

Kenneth Burris (2001) encourages fire departments to use federal grants as "seed money" to develop model programs at the local level. Those programs should be reflective of the department's mission(s).

In Kansas City, the Ewing Kauffman Foundation provided the initial funds to initiate Kansas City's "CPR Now" Campaign. Fitch (1994) hailed the campaign for successfully training 100,000 citizens in less than two years. CPR and Automatic External Defibrillator Programs (AED) are concepts/programs of the expanding mission(s) of the Dothan Fire Department, and foundation support is a desirable addition for program success.

Debbie McDowell (1999) provided guidelines for fundraising that has been tremendously successful in volunteer organizations. Additionally, Kayleen Schaefer (2001) prescribed how gear assistance programs have benefited volunteer organizations. The California Department of Forestry has donated equipment through a volunteer run equipment exchange, and has adopted fire departments to address their capital equipment needs. Regardless of the type of agency (career or volunteer), funding dilemmas are not unique or unexpected.

James Steffens (2000) advocates another appealing strategy for funding. His method of choice is the "Apparatus Lease Program" and the importance of tax exempt status for the organization. Tax exemption is enjoyed by the Dothan Fire Department and is considered when selecting funding options.

Funding sources such as Community Block Development Grants are available according to Oriole (2001). These grants are earmarked for communities of 50,000 or more residents through the United States Department of Housing and Urban Development.

The Dothan Fire Department serves a population of 60,000 residents and could be considered for development grants. Oriole also identified the Federal Surplus Property Program as an excellent source to obtain equipment that is slated for disposal or sale by the General Services Office.

Insurance Franchise Fees and Standby Fees are two programs recommended by the National Conference of Counties (1990) as alternative funding programs being used by many cities. The Dothan Fire Department is considering the adoption of ordinances that would require payment for these types of services.

Don Konkle (1999) introduced the concept of Demand Tariffs that offset the costs of emergency responses and provide a funding base for department operations. Locally, there has not been any discussion for a program that would require payment based on emergency responses.

User fees are gaining in popularity and are supported by Berman (1997) as a form of cost recovery as opposed to profit making. He stressed compliance with the legal language of these agreements. In the Dothan Organization, there is on-going discussion on the provisions found in the Code of Federal Regulations (CFR) which address cost recovery from hazardous materials incidents.

Non-traditional sources of revenue are also being evaluated by public safety agencies as viable alternatives. The International City/County Management Association (1994) has taken a supportive role for innovative approaches that include subscriptions service, cost recovery programs, membership fees and charges to beneficiaries. Referencing the ICMA, these innovative approaches are included in the groundswell of discussions for the Dothan Organization.

Private/Public Partnerships have proven to help reduce financial hardship FEMA (1999). The opportunities for partnership development has long been a mission of the Dothan Fire Department. Partnerships have proven to be effective for Dothan's investment in capital equipment such as the Candidate Physical Ability Test (CPAT).

Literature Review Summary

The literature review of writings and opinions of fire service managers, finance officers, economic consultants and technical committees, enhanced the process of assessing the various programs available to the Dothan Fire Department. The list of options are numerous and department managers are challenged to evaluate the legal parameters as well as the feasibility of program implementation.

Alternative funding is available, partnerships should be explored, and definitive efforts are recommended that eliminate sole dependency by fire departments on municipal budgets for capital investments.

PROCEDURES

This research project was conducted within the guidelines of evaluative research methodology. This procedure allowed the use of contributing authors opinions from professional journals and available research papers on file at the National Fire Academy Learning Resource Center. A significant volume of information was derived from fire service specific journals; however, the opinions of subject text experts were included to demonstrate academic rigor, and to illustrate that capital financing dilemmas are not limited to fire service organizations.

Survey

A mailed-out questionnaire was distributed to the career fire departments in Alabama as listed in the National Directory of Fire Chiefs and EMS Administrators 10th Edition, a publication of the National Public Safety Information Bureau. The selected departments shared common demographics, a common property tax rate, and a workforce similar to the Dothan Organization. A national survey was not used due to the inconsistent tax rates and legislative legalities of various jurisdictions.

The respondents were given 10 days to address the survey questions with instructions to forward their responses by email or the standard postal delivery system.

A total of 52 departments were identified as having career employees; all 52 were mailed the questionnaire and 26 departments chose to participate. These numbers reflect a 50% response from the control group. The questionnaire is listed as

an appendix to this document.

Interview

A structured interview was conducted with the City of Dothan Finance Director, Mrs. Angela Palmer. Mrs. Palmer was interviewed on March 5, 2002 at 1400 hours in her office at the City of Dothan Administrative Complex. The interview consisted of a question and answer procedure that was tape recorded and later transcribed to the text of this document. The interview session required approximately 45 minutes and provided the background information on how the city's general fund is sustained. Mrs. Palmer was asked the following questions:

1. How are capital projects funded?
2. What is the city's position on leasing fire apparatus?
3. What is the city's position on floating bonds?
4. How is the general fund sustained?
5. What methods of alternative funding is recommended by the Finance Office?

The interview established the city's position on bond issues, leasing agreements, and the contributions to the general fund from taxation and utility contributions. The information obtained by this author made it possible to establish a decision matrix that the Dothan Fire Department could incorporate into its future capital investment plan.

Limitations

The selection criteria used to segregate career departments from volunteer using only fire departments in Alabama presented some limitations on a global issue such as alternative funding.

Nevertheless, the solicited information is factually accurate and it reflects consistent information as it pertains to this state's tax structure and the funding methods available to career departments in Alabama. The reader(s) of this paper are asked to be receptive, yet understand that there are many funding options available, with many of them tied to the size of the population, the type of organization, the tax status of the municipality and competent financial management.

Definitions

1. **Ad Valorem Tax** - A property tax assessed against the appraised value of real property.
2. **Automatic External Defibrillator** - Emergency medical equipment used for the field interpretation of cardiac dysrhythmia and subsequently providing life saving intervention.
3. **Bond Issue** - A type of debt instrument used for capital investments.
4. **Debt Service** - Amount of money owed by a municipality to a lending agency including interest.
5. **Lease Agreement** - A method to avoid large capital outlay, often with the right to purchase at lease termination.
6. **Mil Tax** - Tax used to fund most local services.
7. **NFPA Standards** - A compilation of recommendations that are adopted and or referenced by jurisdictions for compliance with emergency operations, equipment and workplace safety.
8. **Personal Protective Equipment (PPE)**- Outer garments worn by emergency service workers that provide exposure protection

from a wide range of hazards.

9. **Rolling Fleet** - Term used to describe mobile property being used by the municipality.
10. **Self Contained Breathing Apparatus (SCBA)**- Mechanical equipment used to protect the respiratory system.
11. **Subscription service** - Most commonly used for emergency medical services. A form of insurance payable as a fixed fee annually.
12. **User Fee** - Fees charged for permits, new construction, special events, inspections and hazardous functions.
13. **Utility Fund**- Revenues collected through the sale of utilities to citizens and businesses.

RESULTS

Research Question #1

How is funding for capital projects appropriated by the City of Dothan?

The City of Dothan provides funds for capital projects through a supplemental budget process that is approved by the Commission 30 to 60 days after the operation's budget is approved by resolution. Finance Director, Mrs. Angela Palmer, identified the systems which provide contributions to the general fund and gave a breakdown of the amounts projected annually from those sources. Some of the sources that provide capital funds are: sales taxes, ad valorem taxes, the city's utility fund and floating bonds. Mrs. Palmer also identified escrow accounts as viable options.

The projected revenue from sales taxes, ad valorem and the utility fund are listed below. Also, listed is a sample of the Fire Department's unfunded priorities.

Funding Sources

Annual Budget	113 million
Available Revenue	107 million
Unreserved Fund	12 million
Sales Tax	31 million(variable)
Ad Valorem Tax	5 mil of property value
Utility Fund	65 million

Fire Department Unfunded Priorities:

Two Fire Stations	1,800,000
Ladder Truck	800,000
18 Firefighters	550,000
45 SCBA	146,000
35 Sets of Turnouts	35,000

Capital investments for the Dothan Fire Department are categorized as unfunded priorities during the budgeting process. Funding for capital investments may not be available based on several factors.

1. Sales tax receipts may be lower than projected.
2. Higher priority may be given capital projects of other city departments.
3. Emergency expenditures may override strategic requests.
4. Outlay may exceed income.
5. Changes in the philosophical direction of the city.

There were two unexpected findings associated with the

research of this project. First, the city's debt service of 75 million dollars exceeded 60% of projected revenue. This condition severely limited the available options to the local government. Secondly, Mrs. Palmer favored internal finance officers for the larger departments to help direct organizational investments and to manage escrow accounts.

The results of the interview with Mrs. Palmer indicated that appropriations for capital projects may need to be reviewed. The utilization of a single finance officer may not adequately address individual department capital requests. Funding is limited with the current appropriations procedures, and those funds are not capable of sustaining the Dothan Fire Department long-range capital plan.

Research Question #2

Why are alternative funding sources needed by the Dothan Fire Department for capital projects?

The City of Dothan Budget Report (2002) listed total appropriations to the Fire Department as \$8,614,411. An allotment of \$477,602 was allocated for operational expenses. The remainder was earmarked for personal services (payroll). This target amount does not include any capital outlay for long range plans.

The literature review revealed that fire apparatus has a recognized service life of fifteen years of front line service with an additional five years in reserve status Chatterton & Chatterton (1994). The Dothan Fire Department vehicle replacement schedule adheres to this principle. Attached, as an

appendix is the fleet replacement schedule for this department. The vehicle replacement plan is a compliance issue related to the ISO rating that the city obtained in 1997.

During fiscal 2003, the plan calls for replacing the air, light and hose unit, a pumper and a supply van. Projected cost is \$400,000. This figure does not include the ISO requirements of a ladder truck and staffing (1.4 million), or the construction of at least one (1) fire station (\$900,000). The significance of these figures is that they emphasize the need for an alternative-funding source for the Dothan Fire Department.

Currently, all capital funding is determined by prioritizing needs based upon the Finance Director's recommendation. The Finance Director is charged with exercising prudent discretion during the needs assessment.

Vetter (2001) encouraged the use of bonds to finance major capital projects. According to Palmer (Interview, 2002), the city's debt service negatively impacts the city's eligibility for low interest bond rates.

The Dothan Fire Department Mission(s) require substantial investments and maintenance cost. The historic appropriation of funds has not met this department's equipment or facility needs. A commitment for complete funding has to be endorsed and followed, along with actuarial studies for accurate accounting.

Research question # 3

What alternative funding methods are utilized by other fire departments for capital projects?

Based upon the results of the mailed-out survey, the Fire Departments in Alabama have not introduced any unique methods for funding. Twenty-six of fifty-two departments (50%) responded to the survey. Below is a sampling of the responses.

Twenty-four (24) of the twenty six (26) responding departments participate in the FEMA Grant Program (94%). Only two received grant funding in fiscal 2002 (6%). Two (2) of the responding departments employed full time Finance Officers (6%), which was a recommendation by Mrs. Palmer Dothan's Finance Director. Eight departments (8) included capital funding in their operations budgets (22%). No information was given as to what percent was earmarked for capital projects. Of the eight (8) departments with inclusive capital and operational budgets, five had a long-range capital plan (62%). Overall, ten (10) departments had long-range capital plans in place (39%).

The survey identified capital projects as stand alone items to be decided upon at a later date by finance administrators. While the line item budget was used in twenty-one of the responding departments, no indication was given as to what type of funding was used for capital projects except the FEMA Grant. It is inferred that the responding agencies are funded through a system that is similar to Dothan's Fire Department.

The literature review listed numerous options which fire departments could pursue. Konkle (1999) presented the Demand Tariff concept for cost recovery as a consideration during financial planning by departments. The ICMA (1994) drew attention to non-traditional sources i.e., subscription services

and membership fees. Both options received attention in recent planning sessions by the Dothan Fire Department.

Mrs. Palmer (Interview, 2002) is a proponent of floating bonds since they minimize the need for large cash transactions at payout. The confines of this text will not allow a complete evaluation of all options; however, fire departments must renew efforts to sustain themselves and utilize innovative ideas to their advantage. The findings conclude that the surveyed departments recognized a need for alternative funding, yet, overall they have not taken pro-active measures to secure those alternatives.

DISCUSSION

The results obtained from the City of Dothan's Finance Director on total organization funding (Palmer, 2002) has created a greater sense of urgency for the identification of alternative sources. Mrs. Palmer's forecasts on the solvency of the system (75 million-dollar debt service) cast some doubt over strategies by local officials to fund capital programs through bond issues.

Two concerns are most apparent from this economical forecast. Vetter's (2001) recommendation to fund major capital projects through issued bonds may be a very narrow window of opportunity based upon Dothan's required payouts and projected income. For example, Dothan's projected income is 107 million dollars (Budget Document, 2002). Its outlay is estimated at 113 million with a debt service of 75 million. An estimate of a 5% loan payment at 3.5 million a year, accompanied by the need to

borrow six million from the unreserved fund prior to any capital project approval, sends warning signals throughout the system.

The second concern is based on the reasoning of Mead & Lissauskas (2002). Their position is that money earmarked for capital items is most vulnerable during financial scale-down operations. Their reasoning would suggest that at Dothan's rate of spending, the capital requests of a non-income generating enterprise like the Dothan Fire Department could expect considerable streamlining.

Many of the responding fire departments indicated that they lacked a financial advisor and also lacked a long-range plan (Survey, 2002). In fact, only two departments had finance managers on their respective staffs. The lack of financial planners capable of articulating the needs of the fire department, jeopardizes efforts to expand the Dothan Fire Department mission or continue to meet the existing service demands. It is not practical or prudent for fire department managers to expect external accountants to represent fire department interest.

A functional fleet replacement schedule Chatterton & Chatterton (1994) and the acceptance of new missions Dipoloi & Buckman (1997), which have maintenance costs, require the development of long-range funding sources to reduce the hardship on the organization. It is feasible to explore escrow accounts that would receive regularly scheduled contributions from built-in increases to the general fund.

Organizationally, the outlook for the existing vehicle

replacement plan, the ISO strategic plan, and the requirements for system maintenance is not very encouraging. The impact of the streamlining effort may have already begun to dismantle the system. The Dothan Fire Department has not been able to abide by its vehicle replacement plan as referenced in the appendix. As of fiscal 2002, only one fire engine had been bid. By the manufacturer's delivery date, the plan will have experienced a three-vehicle deficit. The ISO requirements for an additional ladder and company has been pushed back for the fourth consecutive budget year, and this year's budget was cut by 10%.

The study indicates that it is no longer a question of should the department pursue alternative funding, but it is more appropriate to ask, "Why haven't we?" It is also noted that without the technical expertise of finance officers in the fire department, the ability to successfully acquire funding will be very elusive and current strategic objectives cannot be met.

RECOMMENDATIONS

The Dothan Fire Department should develop contingency plans to address its failure to identify funding sources for capital projects. The fire department should begin participating in the FEMA Grant Program at the next opportunity, and department participation should be intended to provide some stability to a system that is losing ground annually. Department decision makers need to avoid the tendency to design a system solely dependent on supplemental allocations or federal grant money, and re-evaluate existing strategic plans, revise its apparatus replacement schedule to allow for longer replacement intervals,

and consider investing less in the cost of apparatus.

The desired outcome is a replacement program that accommodates the strategic assessment for buildings and vehicles, and builds a system that is reliable and expandable.

Leasing agreements are available that may meet the special needs of Dothan. For example, a pre-payment format that allows the purchase of a vehicle at today's prices to avoid inflation adjustments is worthy of exploration by the municipality. Additionally, an escrow account that diverts funds from the general fund's annual 5% increase may be another option that gives more flexibility to the organization.

Successful implementation of a leasing option would allow vehicle replacement or ownership at lease termination, or vehicle replacement dates could be aligned with lease termination dates. Either method, based upon other system funding demands, is viewed favorably by Fire Department administrators.

Alternative funding sources are needed for one major reason. The city's debt service is 60% of its revenue. Financial planners recommend that the debt service be held to 25% of the revenue projections. That is not the case in Dothan and the city treasury cannot support the capital plan of the fire department.

Although the efforts of the fire department led to a Class 2 ISO rating, the ability to retain that rating is questionable. The ISO rating is responsible for twenty million dollars in saved premiums. Those savings were realized at a cost to Dothan

taxpayers of six million dollars. However, those savings are not calculated as usable revenue and the decision to forfeit capital maintenance items may not be difficult by local officials.

It is recommended that the ISO decision be re-evaluated through a cost benefit analysis and proposals made on how to maintain the system's components, then determine if the City should continue to invest in the project.

The Dothan Fire Department has engaged in partnership building since its move towards comprehensive service. Partnerships with industry and healthcare seem more advantageous than others for our organization. Industries working with hazardous processes could contribute equipment/funds towards the purchase of haz-mat vehicles to aid in responses to the respective business.

Healthcare partnerships aligned with foundation support could provide immediate solvency to Dothan's long-range plans. This relief could manifest itself through the financing of thermal imaging devices (Iris, Bullard), that have costs ranging in the thousands of dollars. The positive results yield the capability to discover undetected fires, minimize peripheral damage, and eliminate rekindles. The added benefit is being able to continue with the new missions of the department and generate customer satisfaction.

Innovation is apparently the main ingredient when it comes to alternative funding for the Dothan Fire Department. The future of the Department's capability lies in the creativity of

its leadership. Leaders will need to make new determinations on how the mission(s) are to be accomplished and evaluate investments towards those missions.

It is recommended that the Dothan Fire Department establish partnerships to help reduce redundant inefficient systems. Partnerships that allow for cost distribution are the wave of today's management decisions. As costs skyrocket and populations and service demands continue to increase, administrators will be charged with marketing the department's image while supporting unpopular positions that require fees for service.

Future research should include a broader sampling of fire service agencies. The funding strategies of "Fire Districts" may hold the keys to success for career organizations; particularly the autonomy Fire Districts enjoy when implementing ordinances for their jurisdictions. We are only limited by our energy. Just as we have accepted the job to protect lives and property, we should accept the responsibility to build a sustainable emergency response system.

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APPENDIX A
(Letter of Request and Survey
Questionnaire)

February 11, 2002

RE: Executive Fire Office Program

Dear Chief or Designee:

I am participating in the National Fire Academy's Executive Fire Officer Program. I am currently in the third year of the four-year curriculum, which requires the field application of the classroom learning activities. My research project is focused on the various methods available to the fire service to generate income streams for Capital Programs/Projects; it is entitled ***"Fire Department Funding Strategies for Capital Projects"***.

I am the Fire Chief for the Dothan Fire Department in Dothan, Alabama, and I am conducting a survey of career departments to determine the strategies employed for funding capital improvements.

I am soliciting input from you or your designee in order to establish a body of information that may be utilized throughout the fire service as a supplemental aid in the budgeting process. Please take a few minutes of your invaluable time to accommodate this request for input. I am certain that any information gained from this survey will prove to have a significant impact on the way the fire service conducts its financial affairs. Please send your responses to my attention at the address below or use my listed email address.

Thanking you in advance for your very important contribution to this project. Please send your response within the next ten 10) days if at all possible.

Seeking Opportunities for Success, I am,

Sincerely,

Samuel P. Crawford
Fire Chief
Dothan Fire Department
600 Columbia Highway
Dothan, AL 36301
Spcrawford@dothan.org

Attachment: Questionnaire

February 11, 2002

RE: Executive Fire Office Survey

1. What type of budget does your department use?
 - a. Itemized budget
 - b. Zero Based Budget
 - c. Target Budget
 - d. Performance Budget
 - e. Program Budget
2. Does your department employ its own Finance Officer?
 - a. Yes
 - b. No
3. Does your department fund capital projects as a stand-alone allocation?
 - a. Yes
 - b. No
4. Does your department have a long-range capital investment plan?
 - a. Yes
 - b. No
5. Does your department participate in the FEMA Grant Program?
 - a. Yes
 - b. No
6. Has your department's response area increased within the last five (5) years?
 - a. Yes
 - b. No
7. Has your department's budget increased or decreased within the last five (5) years?
 - a. Increased
 - b. Decreased

APPENDIX B
(Vehicle Replacement Plan)

DOTHAN FIRE DEPARTMENT
Support Service Vehicle Replacement Chart

Current Vehicle Identification	City Serial Number	Model Year	Service Life In years at Time of Placement	Requested Replacement Date
Engine 7 (ALF)	5117	1958	42 years	FY 2000
Truck 3 (ALF)	5150	1973	28 Years	FY 2001
Reserve Engine (ALF)	5115	1978	23 Years	FY 2001
Reserve Engine (Seagraves)	5118	1980	22 Years	FY 2002
Reserve Engine (E-One)	5121	1986	17 Years	FY 2003
Reserve Engine (E-One)	5123	1988	16 Years	FY 2004
Paramedic Engine 2 (E-One)	5122	1988	17 Years	FY 2005
Paramedic Engine 1 (E-One)	5125	1989	17 Years	FY 2006
Paramedic Engine 3 (E-One)	5124	1989	18 Years	FY 2007
Paramedic Engine 6 (E-One)	5126	1994	14 Years	FY 2008
Paramedic Engine 5 (E-One)	5114	1996	14 Years	FY 2009
Paramedic Engine 4 (E-One)	5127	1997	13 Years	FY 2010
Paramedic Engine 8 (E-One)	5129	1997	14 Years	FY 2011
Paramedic Engine 9 (E-One)	5128	1997	15 Years	FY 2012
Truck 1 (E-One)	5105	1993	20 Years	FY 2013

DOTHAN FIRE DEPARTMENT
Support Service Vehicle Replacement Chart

Current Vehicle Identification	City Serial Number	Model Year	Service Life In years at Time of Placement	Requested Replacement Date
Air & Light Unit (20' Flat Bed)	5151	1969	33 Years	FY 2002
Canteen Van (Chevy Van)	5152	1987	16 Years	FY 2003
Prevention Two (Sedan)	5156	1989	14 Years	FY 2003
EMS - Three (Sedan)	5140	1989	14 Years	FY 2003
Prevention Three (Van)	5155	1989	15 Years	FY 2004
Prevention Four (Sedan)	5139	1989	15 Years	FY 2004
Customer Service Unit (Chevy Van)	5109	1989	15 Years	FY 2004
Battalion One (GMC Suburban)	5106	1995	10 Years	FY 2005
Haz Mat Two (Step Van)	5157	1990	17 Years	FY 2007
EMS Two (Sedan)	5102	1991	16 Years	FY 2007
Haz Mat Nine (Step Van)	5131	1994	13 Years	FY 2007

APPENDIX C
(Survey Department Addresses)

Albertville Fire Dept.
P. O. Box 1248
Albertville, AL 35950

Anniston Fire Department
225 E. 17th Street
Anniston, AL 36202

Adamsville Fire Department
P. O. Box 309
Adamsville, AL 35005

Cullman Fire-Rescue Dept.
P. O. Box 278
Cullman, AL 35056

Eufaula Fire Department
115 S. Orange Avenue
Eufaula, AL 36027

Forestdale Fire Dist.
751 Heflin Avenue E
Birmingham, AL 35214

Lanett Fire-EMS Department
P. O. Box 290
Lanett, AL 36863

Albertville Fire Department
P. O. Box 1248
Albertville, AL 35950

Hoover Fire Department
250 Municipal Drive
Hoover, AL 35216

Huntsville Fire and Rescue
816 Wheeler Avenue
Huntsville, AL 35801

Jasper Fire and Rescue
P. O. Box 1589
Jasper, AL 35502

Alexander City Fire Dept.
38 Court Square
Alexander City, AL 35010

Brookside Fire and Rescue
107 Market Street
Brookside, AL 35036

Cahaba Valley Fire and EMS
5487 Highway 280 S
Birmingham, AL 35242

Demopolis Fire Department
306 Highway 80 W
Demopolis, AL 36732

Florence Fire Department
402 W. Wood Avenue
Florence, AL 35630

Lafayette Fire and EMS
P. O. Box 87
Lafayette, AL 36862

Leeds Fire and Rescue
629 1st Avenue SE
Leeds, AL 35094

Homewood Fire Department
190 29th Avenue S
Homewood, AL 35209

Hueytown Fire and Rescue
P. O. Box 3650
Hueytown, AL 35023

Irondale Fire and Rescue
5308 Beacon Drive
Irondale, AL 35210

Maxwell Air Force Base Fire
400 Canon Street
Maxwell AFB, AL 36113

Midfield Fire Department
725 Bessemer Super Highway
Midfield, AL 35228
Montgomery Fire Department
P. O. Box 1111
Montgomery, AL 36101

Muscle Shoals Fire Department
1002 E. Avalon Avenue
Muscle Shoals, AL 35661

Northport Fire Department
P. O. Box 569
Northport, AL 35476

Pell City Fire and Rescue
3040 Cogswell Avenue
Pell City, AL 35125

Pleasant Grove Fire Department
501 Park Road
Pleasant Grove, AL 35124

Prichard Fire Department
303 W. Turner Road
Prichard, AL 36610

Saraland Fire Department
716 Highway 43 S.
Saraland, AL 36571

Sheffield Fire Department
601 E. 2nd Street
Sheffield, AL 35660

Talladega Fire Department
203 W. South Street
Talladega, AL 35160

Tuscaloosa Air Crash
7515 Robert Cardinal Airport Road
Tuscaloosa, AL 35406

Tuscumbia Fire Department
218 S. Dickson Street
Tuscumbia, AL 35674

Mobile Fire-Rescue Dept.
701 St. Francis Street
Mobile, AL 36602
Mountain Brook Fire Dept.
100 Hoyt Lane
Birmingham, AL 35213

North Shelby Cnty. Fire Dist.
4617 Valley Dale Road
Birmingham, AL 35242

Pelham Fire Department
P. O. Box 1419
Pelham, AL 35124

Phenix City Fire Department
1111 Broad Street
Phenix City, AL 36867

Prattville Fire Department
102 W. Main Street
Prattville, AL 36067

Redstone Arsenal Fire Dept.
AMCOM-RFA-DPW-FD
Huntsville, AL 35898

Selma Fire Department
1500 Broad Street
Selma, AL 36702

Sylacauga Fire Department
300 N. Norton Avenue
Sylacauga, AL 35150

Troy Fire Department
200 George Wallace Drive
Troy, AL 36081

Tuscaloosa Fire Department
P. O. Box 35403
Tuscaloosa, AL 35403

Tuskegee Fire Department
904-B E. Martin L. King Hwy.
Tuskegee, AL 36083

Vestavia Hills Fire Department
513 Montgomery Highway
Vestavia Hills, AL 35216

Arab Fire Department
301 N. Main Street
Arab, AL 35016

Atmore Fire Department
201 E. Lewisfield
Atmore, AL 36502

Alexander City Fire Dept.
38 Court Square
Alexander City, AL 35010

Ashford Fire Department
102 5th Avenue
Ashford, AL 36312

Boaz Fire and Rescue
201 Brown Street
Boaz, AL 35957